Titan.

1848. d					
Sep. 21·54	193″	E.			
Oct. 5·46	183	E.	2 obs.		
16·50	127	—W.	3 ,,		
17·34	76	—W.	3 ,,		
18·35	occulted by *Saturn*.				
20·34	134	E.	3 ,,		
21·45	181	E.	4 ,,		
22·45	197	E.	2 ,,		
29·43	166·5	+W.	3 ,,		
Nov. 4·35	75·5	+E.	3 ,,		
9·28	148	—E.	4 ,,	14″·4 S.	2 obs.
11·26	91·6	—E.	3 ,,	13·5 S.	2 ,,
14·38	163	+W.	4 ,,	12·6 N.	1 ,,
21·35	134	+E.	4 ,,	6·1 S.	1 ,,
24·45	173·4	—E.	2 ,,		
30·36	159·8	+W.	2 ,,	11·9 N.	2 ,,
Dec. 1·43	171·7	—W.	1 ,,		

Iapetus.

Sep. 21·56	439″·5	E.			
22·41	482	E.			
Oct. 5·46	513	E.		110″	N. of *Saturn's* centre.
16·50	127	E.	3 obs.	89	N. 2 obs.
17·34	86	E.	3 ,,		
18·35	38	E.	5 ,,	62	N. 3 ,,
20·34	43	W.	4 ,,		
21·45	88	W.	5 ,,	52	N.
22·45	134	W.	3 ,,	45	N.
25·46	250	W.	3 ,,	40	N.
29·43	388·3	W.	2 ,,	5	N.
Nov. 4·49	524	W.	3 ,,	30	S.
9·28	538·6	W.	3 ,,	61	S. 2 ,,
11·26	534	W.	3 ,,	64·3	S. 3 ,,
14·38	475	W.	4 ,,	76	S. 2 ,,
21·35	266	W.	3 ,,	73·8	S. 3 ,,
24·45	146·6	W.	2 ,,	68·8	S. 2 ,,
30·40	104·2	E.	1 ,,	44	S. 1 ,, ?
Dec. 1·43	149	E.	1 ,, ?		

Note on the Mass of Uranus. By Mr. Adams.

"The mass of *Uranus* is a very important element in the determination of the orbit of *Neptune*. Two values of this mass have been given, differing widely from each other. Bouvard, from the action of *Uranus* on *Saturn*, found the mass to be $\frac{1}{17918}$, that of the sun being $=1$; while more recently, from observations of the satellites, Lamont has obtained the value $\frac{1}{24605}$. In order to throw light on this subject, Mr. Lassell was kind enough to make for me the observations of the satellites of *Uranus*, which are given in the *Monthly Notice* for March last.

"These I have carefully reduced, and the value of the mass which I have found from the observations of the fourth satellite (which are more to be depended on for this purpose than those of the second) is $\frac{1}{20897}$, which is almost exactly a mean between the results of Bouvard and Lamont. In obtaining this result, I have rejected the first day's observations, which are discordant both for the second and fourth satellites.

"I have also reduced all Sir Wm. Herschel's measures of distance of the satellites given in his paper in the *Phil. Trans.*, 1815, and the value of the mass obtained from the observations of the fourth satellite is $\frac{1}{21165}$, which agrees very closely with that found from Mr. Lassell's observations. Although, therefore, more numerous observations will be requisite in order to obtain a mass which may be used with confidence in the theory of *Neptune*, I have no doubt that the value $\frac{1}{21000}$ is much nearer the truth than either of those which have been previously given, and I shall accordingly employ it in my subsequent calculations respecting the orbit of *Neptune*.

"The most probable values of the periods of the second and fourth satellites, given by the combination of the observations of Sir Wm. Herschel, Sir J. Herschel, Lamont, and Mr. Lassell, are $8^{d}\cdot7058435$ and $13^{d}\cdot463139$ respectively; but the remaining errors of the epochs are greater than can with probability be ascribed to mere errors of observation, and seem to indicate the existence of considerable perturbations."

GOUJON'S COMET.

BERLIN. (Dr. Galle.)

1849.	Berlin M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
April 26	10 20 21	165 30 59·4	+10 40 49·8
27	10 6 37	165 28 39·2	+13 51 12·3

HAMBURG. (M. G. Rümker.)

	Hamburg M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
April 23	9 27 27·6	165 45 26·6	+ 0 28 30·6
24	8 51 41·8	39 30·3	Meridian.
May 2	10 36 1·0	30 34·1	28 4 35·8
3	10 31 54·1	33 57·3	30 29 5·9
4	10 23 53·2	38 8·8	32 44 44·7
5	10 3 3·3	43 14·9	34 51 37·5
	11 3 37·3	43 29·8	34 56 51·6
6	9 25 55·9	165 49 1·0	36 49 53·6
12	11 43 33·4	166 42 38·2	46 46 30·6
18	11 58 27	168 3 8·0	53 35 0·4
20	11 41 58·6	35 54·3	55 22 2·8
21	11 7 1·3	168 52 55·4	56 10 20·0
22	11 59 18·3	169 11 11·2	+56 59 24·7